

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A radial engine including:
  - an engine block having a central aperture;
  - a drive shaft extending through said aperture;
  - 5 a spaced pair of cam plates rotationally fixed with respect to each other, the plates being fixedly mounted on said shaft;
  - each cam plate including a planar face, the planar face of one cam plate opposing the planar face of the other cam plate;
  - the opposing faces each including a pair of spaced opposing walls defining a
  - 10 substantially "figure 8" shaped continuous loop, the walls on one said face being aligned with the walls on the opposing face;
  - at least one cylinder fixed with respect to said block and extending outwardly from said block;
  - a reciprocable piston slidably mounted within said cylinder;
  - 15 a connecting rod fixedly connected at one end to said piston and having an opposing free end;
  - a slider bearing located on said free end of said connecting rod, said slider bearing engaging with a guide for guiding said slider bearing during reciprocation of said piston; and
  - 20 a cam follower engaged with said walls of each cam plate, wherein reciprocation of said piston rotates said plates and said drive shaft.
2. A radial engine as claimed in claim 1 wherein said guide is defined by a radially extending bore in said engine block and sidewalls of said bore laterally support said slider bearing during reciprocation of said piston.
- 25 3. A radial engine as claimed in claim 1 or 2 wherein said slider bearing includes a prismatic body.
4. A radial engine as claimed in any one of the preceding claims wherein said cam follower is located on said slider bearing.
5. A radial engine as claimed in any one of the preceding claims wherein said cam
- 30 follower is a pin.
6. A radial engine as claimed in claim 5 wherein each said substantially "figure 8" shaped continuous loop is defined by a groove in each said plate and said cam follower projects into each said groove.

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6. A radial engine according to any one of the preceding claims further including a guide for translationally guiding said connecting rod.
7. A radial engine as claimed in claim 6 wherein said guide is defined by a complementary bore in said engine block and the sidewall of said bore laterally supports said connecting rod during reciprocation of said piston.
8. A radial engine as claimed in claim 7 wherein said sidewall includes a longitudinal slot through which said cam follower projects.
9. A radial engine as claimed in any one of the preceding claims, wherein said cam follower includes a roller for rolling engagement with said walls.
- 10 10. A radial engine as claimed in claim 1 wherein said walls define a continuous projecting ridge on each plate defining said loop and said cam follower includes channels into which the ridges extends, the follower being configured to traverse the ridges to rotate the plates.
11. A radial engine as claimed in any one of the preceding claims, including a plurality of said cylinders.
12. A radial engine as claimed in claim 11 including an even number of said cylinders, regularly circumferentially spaced around the periphery of said engine block.
13. A radial engine substantially as herein described with reference to any one of the accompanying drawings.